

CAROL GOSS

DRIVEN to ABSTRACTION

a reflection on making video art in the 1970s

Art forms have life spans, beginnings, middles and ends. Cave painting did all right, lasting millenia, while if you started to play the harpsichord too late in its cycle you'd soon be playing piano forte. In the beginning, video didn't exist. First there was television.

As a child growing up in the 1950s my family made 8mm movies. My younger sister, Marilyn, was featured on "All About Baby", a television program in Chicago in which I appeared peripherally. My father filmed the monitor during the live broadcast: our own private kinescope. In 1968, while studying theatre and art, I directed an anti-Vietnam war one act play, "A Little Higher Around the Ears, Boys", by Phillip E. Wychodski for WETA public TV TOPIC series in Washington, DC. I sat on David Brinkley's stool during the Q&A, but I have no videotape of the broadcast. I didn't think to ask about it. There wasn't any.

In 1973 I worked as a stand-in on "The Exorcist" at the Warner Brothers lot on 58th. Street, with director, Billy Friedkin. This was theatre in an airplane hanger. I went to Kodak in Rochester, NY in 1974 for a week to do an animated PSA (public service announcement) of [William S. Burroughs](#) and [Paul Bley](#) (to promote a performance at the Eisner and Lubin Auditorium at NYU). My drawings were shot on film with the help of ex-Disney animator, Ernie Crisp and then sent to Kodak's custom lab for development. When the film came back it was streaked with "blue shock." Light had mistakenly been allowed to enter the canister and had ruined the film. It was then that I vowed never to let a master out of my hands.

Deciding to videotape Burroughs's and Bley's performances meant renting a camera, tripod and 3/4" video deck from Sam Adwar or Louis at CTL in NYC. Video seemed fine for documentation if you had plenty of light. Later in 1974, at a screening at Anthology Film Archives, I met Nam June Paik. He suggested that I go visit the Experimental Television Center in Binghamton, NY if I wanted more from video.

VIDEO SYNTHESIS

I took the bus from the city, got off in downtown Binghamton and walked to the Center. It was in a large brick loft building full of monitors in various stages of deconstruction, racks of hand built synthesizers and electronic test equipment. There were no labels or manuals. David Jones, the resident electro-physicist - as I liked to call him - was available though, to give you a quick talk through.

Years of working in theatre and film seemed less relevant here than the time I had spent painting. Video cameras were rarified creatures for many of us who only had access to them occasionally. Deep immersion with this much tech, alone for a week twenty four hours a day, was an undreamed of luxury.

In those days ETC's mandate was : "to facilitate the direct, immediate relationship of the artist to the art-making tools, the electronic image processing systems, in a manner analogous to the ways in which a painter is engaged with the medium of paint". It was about the process of seeing, or as painter Pierre Bonnard put it, "playing with the optic nerve."

Once the camera was turned on, the monitor became one's retina. This phosphorescent screen displayed the interaction you were having with the equipment. The first thing everyone invariably did was feedback. This was the initial and yet most amazing experience. To train the camera, slightly off center, on the monitor which was displaying the camera's signal was tantamount to creating life. Anyone that has tried it can testify to the fact that it has nothing to do with digital imaging. There is a degree of tension which must be maintained in order for the displayed movement not to strobe or fall into stasis. This loop between the camera viewing the cathode ray tube and the cathode ray tube displaying the image of the electron beam slightly off center, magically created a dynamic image with multiple iterations of itself - all depending on how you played with the aperture, focus, or angle of the camera. If you did too much the image would go crazy, out of control. If you did too little the movement would die. If you could maintain a harmonious range of movement then images could be made to dance. It was never a solo venture though. One was always aware that one was collaborating with the raw force of electricity.

Working alone for 18 hours straight day after day permitted insights that would not have occurred in a more social environment. The feedback images resembled mandalas. Any 1960s person would recognize this instantly. The question was, "why?". Which came first: the Buddhist mandala or the electronic mandala? Was Itzhak Bentov's theory of the universe as a torus with all energy moving in a helix the basic paradigm, and video feedback and Buddhist mediation mandalas just manifestations of it?

There were other philosophical observations to be made. David would leave his block diagrams lying around, and for one with a background in art but not engineering, they were viewed symbolically - not pragmatically. These board diagrams might be "creations" or, what seemed more likely to me, replications of innate human wiring, made unconsciously "like us", because that is all we are able to do: iterate our pattern.

Sometime during the 1970s the USSR published a photograph of "the background radiation of the universe" taken from a satellite. There were two levels of gray in the image and they claimed that there was a temperature differential of 3 degrees between the two gray levels. The image was of a yin yang symbol.

ETC had several different kinds of synthesizers at that time. One of them contained oscillators. These could also be used to create sound, as had been done earlier in the Moog and Arp audio synthesizers. Oscillators were generally visualized as horizontal bands, unless one re-scanned them at a different angle or found some other way to interfere with them, as I did in "[Topography](#)" (1975). Treated monitors, with their copper coils reversed charged, allowed the raster to be flipped or inverted.

The real thrill for me was the colorizers. There were two at the Center: David Jone's and the Paik-Abe. They were entirely different from each other. I first worked with the Paik-Abe and got such a rush from it that I was never the same afterwards. It is this one machine that hooked me for life on video art. The colors were indescribable. Magical things happened at the borders of shapes and color fields. The intensity, the saturation, and the hues were lush. No one quite knew what made it tick, and I think there were only two or three of them made by Nam June and Shuya Abe. David Jones' colorizer was very logically organized. It allowed four b/w signal inputs to be keyed into each other with 100% control of hue, saturation, contrast, luminosity and video level on each channel. This provided great range and subtlety.

Using the tools available for making images out of sheer electricity with colorizing synthesizers was like creating molten stained glass. In fact, to this day, I dislike projected video and dread the day when LCD screens replace CRTs. We will have lost that wonderful luminosity which only the "evil blue light" can deliver.

In retrospect, much of the excitement of working with early analog video synthesis was the fact that one did not have total control. The process was highly interactive. That is something which has been entirely lost with digital tools. They provide their own opportunities, of course, but there is no tug of war going on with a live force.... everything is very domesticated and predictable.

James Gleick's wonderful book, "Chaos, Making a New Science", chronicles the early discoveries in the 1970s in the field of fractal geometry, from Lorenz to Mandelbrot. It reads like a detective story. Those of us that were doing video feedback during the 1970s were encountering the same phenomena as these scientists. Mandelbrot translated his observations into mathematical theory. I translated mine into abstract animation and philosophical musings. Videotape made it possible to contemplate one's work with hindsight, which is always important for growth and understanding.

None of this was possible before the late 1960s. Nobody had "access." Ralph Hocking has a piece of early television cable in his archives. I think that the twisted wires are over a foot thick. It must weigh hundreds of pounds. This is not the sort of thing that individual artists or scientists got near, and if they did, they would have had to kinescope their work!

Video is an eclectic medium. It can be used to record a game show, display a heart murmur, or construct the imaginings of the inner eye. The basic duality is a philosophical one: the camera recording the reflection of light off identifiable objects or light itself as the subject. Light as manifested on phosphorescent pixels: the relationship of time and space and how these patterns inform, reinforce, contrast, and contradict our human perception of rhythm, horizon, balance, etc.

This decade of the 1970s, before the proliferation of the personal computers, provided a unique opportunity to media artists. The tools of this period, though restrictive, were liberating at the same time. We were forced to see elementally. The reductionist beauty of abstraction was a given. Our job was to create meaning with color, line, pulse, dark, light, surface, etc. We had more in common with the early artist filmmakers (Leger, Ruttman, Egging, Richter, Lye) than we did with contemporaries who used the camera as a documentary tool. The distinction of this decade is more pronounced when one compares it to the work that preceded and followed it. Filmmakers working in abstract or surreal forms were forced to use cell frame animation techniques. Computer animators work with single frames, often with slow rendering times and precise, mechanical outcomes. In both of these processes there is no possibility for real time interaction with the medium. It is to the credit of the 3D computer animation community, though it is currently obsessed with hyper-realism, that it wishes to simulate analogue properties. "Dirt", "noise", "glitch", "randomness" are all qualities akin to life and alien to the computer. Analog video synthesis has its own aesthetic. It is a real time event which can be dirty, random and talk back.

HOLOGRAPHY

I was awarded a grant in 1978 from CCCWES/AIR and the Museum of Holography in NYC to produce a 120 degree transmission white light hologram - which permitted movement. It was the first hologram to incorporate a raster scanned video image. This project required the skills of a number of people. The concept of the hologram incorporated opposing movement of two elements: a face and a geometric object. They would both recede into each other from opposite sides of the hologram.

For the first image, Hart Perry (The Holographic Film Co.) shot film of my head while I rotated on a large turntable. This film was then transferred to videotape. My head was reduced to a point from left to right by Steve Rutt (Rutt Electrophysics) on his and Bill Etra's video synthesizer. The videotape then had to be transferred back to film. The second image was an animated icosahedron. It was constructed one triangle at a time in wire frame by Judson Rosebush at his Digital Effects studio with a time share line all the way from Bethesda, Maryland for number crunching power! This took hours. The icosahedron was then filmed stop frame by Jeff Kleiser (EFX Unlimited). Jeff then optically registered these film elements on 16mm so that as my head traversed the hologram from left to right, and the icosahedron went from right to left, the two images would be superimposed. The hologram is entitled, "Femophagy" (woman eating).

The final stage of production was for the 16mm film to be compressed into holographic vertical bars and displayed on a single large sheet of film. This film is then bent over 120 degrees of a circle, illuminated and made visible by a 100 watt clear incandescent light bulb placed at a certain angle from below the

film. The coloration is "rainbow," and it can only be viewed from a particular angle while the spectator walks around it. The "Through the Looking Glass" show at the Museum of Holography in 1979, where "Femophagy" was first exhibited, showed work by many artists and scientists - including Don White from Bell Labs. There were great expectations of holography then. We were sure holographic movies in natural color would be soon forthcoming.

LIVE PERFORMANCE

In 1974 Paul Bley and I established Improvising Artists, with the mission to record music and video. We were putting out vinyl LPs of avant garde jazz. I would bring video synthesizers to performances and studio sessions and make "image processed" tapes in live performance. We did this at Axis-In-Soho in NYC in 1977 on David Jones colorizer with Walter Wright, recording [Sun Ra](#), his Arkestra, Paul Bley and Glen Moore. That year I recorded Marion Brown and Gunter Hampel with Dan Sandin's synthesizer at a record session and performed with Perry Robinson, Badal Roy and Nana Vasconcelos at the Public Theatre, NYC. In 1978 Skip Sweeney and I took turns on Bill Hearn's Video Lab with multiple cameras in live performance at the Great American Musical Hall in San Francisco, recording performances by [Jimmy Giuffre](#), [Lee Konitz](#), [Paul Bley](#) and [Bill Connors](#). .

Live performance video with improvising jazz musicians would seem to be a natural. That is if the musicians and concert producers could get used to the amount of light required by cameras in those days. Also, club producers didn't mind sound engineers coming in with equipment and cables, but they found it difficult to get used to camera people walking onstage while the musicians were playing. As usual they underestimated their audience.

The following is from a press release for the performance at the Great American Music Hall in 1978:

"We propose a breaking down, a decoding of the barriers that surround the creation of images and the creation of music. The purpose of this destructive act is to discover what happens in the place of convention. The musicians, Jimmy Giuffre, Lee Konitz, Bill Connors and Paul Bley, have agreed to ... relate to the visual image as they would to another musician...."

What video synthesis brought to live performance was a trip. You were literally transported from the performance space to another plane. The best example of this was with stride pianist, Sun Ra. Sunny was a fascinating guy. Early on he claimed that all of Western culture came up the Nile to Egypt from Ethiopia. He knew numerology and dressed in multiple crocheted caps and dashikis. In person this looked like a rather homespun getup, but on video, put through a colorizer - Sunny was literally "Sun Ra," king of Egypt in all his splendor.

Instrumental music evokes sensations, images, relationships and stories through abstract sounds. Improvising musicians relate to each other in evolving dialogues which have dramatic form. When we shared the stage with these musicians we were joining a tradition much older than video. Though all music composition, or art for that matter, is initially improvised, only jazz formally presents this process to an audience.

Abstraction is just as relevant to video as it is to music. Images need range to evoke psychic states that do not necessarily have corollaries in the eyes-open everyday world.

Two things I learned from improvised live performance were: 1. It was a waste of time for the video artists to follow any kind of broadcast production model. At the Great American Music Hall the camera people and synthesist began with headphones and mics, to call shots. After the first piece I asked everyone to discard them. Communicating on that level is counter-intuitive in improvisation. The video artists need to have the same freedom as the musicians. The cameras, the switching, the synthesis must float without restriction. 2. The same was true of post-production. The only editing that left the performance with

integrity was to simply add titles and credits. Any posting of additional material immediately looked alien. It broke the thread of communication that had happened on the stage.

Doing real time video with synthesis requires all the skills of production and post-production in the same moment, without any retakes. Add to that the fact that you generally have to move an entire studio of equipment in and out the same day you perform. It doesn't hurt to be in shape. The time compression that occurs in improvised live performance is a wonderful laboratory for creativity. For preparation, one finds oneself spending a lot of time just thinking about possibilities. Because nothing is scripted, the performance situation then allows one to draw on these ideas, or new permutations of them, as needed. Inevitably, performance and collaboration stimulate new ideas and possibilities that were not entirely foreseen. This is the great reward of improvisation.

Copyright Carol Goss 1998 All Rights Reserved

E-Mail: iai@improvart.com
<http://www.improvart.com/goss/>

Copyright Not Still Art 1996-2019 All Rights Reserved.